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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,727	04/08/2004	Philippe Jean Goix	A-72178-1/AJT	3223

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EXAMINER

WILLIAMS, DON J

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/821,727	Applicant(s) GOIX ET AL.	
	Examiner Don Williams	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on April 4, 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-6 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Tambo et al (5,194,921).

As to claim 4, Tambo et al disclose each particle (A) emits light (8) at multiple distinct wavelengths (λ_1 , λ_2) as they pass through an analyzing volume (7) wherein tunable filters (11, 12) for receiving the emitted light (8) and repetitively pass light (8) at distinct wavelength (λ_1 , λ_2) as particles (A) pass through the analyzing volume (7); and detectors (13, 14) for receiving the light (8) from the tunable filters (11, 12) and provide output signals (V_1 , V_2) for each distinct wavelength (λ_1 , λ_2) as the particle (A) passes through the analyzing volume (7), (see figure 1, column 8, lines 18-60).

As to claim 5, Tambo et al disclose particles (A) each of which fluoresces and emit light (8) at multiple different distinct wavelengths (λ_1 , λ_2) responsive to excitation light (2) wherein the particles (A) flow through an analyzing region (6); applying excitation light (2) to the analyzing region (6) to cause each particle (A) to emit light (8) at its distinctive wavelengths (λ_1 , λ_2) as it passes through the analyzing region (8); receiving the emitted light (8) with tunable optical filters (11, 12) to repetitively and

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sequentially pass light (8) at each of multiple distinct wavelengths (λ_1 , λ_2); and detecting the light passed by the filters (11, 12) with detectors (13, 14) to provide output signals (V_1 , V_{out1} , V_2 , V_{out2}) representative of the distinct wavelengths (λ_1 , λ_2), (see figure 1, column 8, 18-60), figure 4, column 10, lines 3-27).

As to claim 6, Tambo et al disclose the particles (A) are caused to flow at a rate such that the light (8) emitted by a particle (A) is passed by the tunable filters (11, 12) a number of times as the particle (A) transits through the analyzing region (6), (see figure 1, column 8, lines 18-42, column 11, lines 30-35).

As to claim 9, Tambo et al disclose particles (126) in a fluid (7) which fluoresce at one or more wavelengths (λ_1 , λ_2) causing the fluid (7) to flow past a source (1) of illumination (2) whereby particles (126) emit fluorescent light (8) at the one or more wavelengths (λ_1 , λ_2) periodically detecting the emitted characteristic fluorescence of particles (126) as the flow through the illumination source (1); and providing output signals (V_{out1} , V_{out2}) representative of the characteristic wavelength (λ_1 , λ_2) of each particles (126), (see figure 1, column 8, lines 17-43, figure 4, column 10, lines 3-20).

As to claim 10, Tambo et al disclose the characteristic fluorescence is detected by periodically passing the emitted light (8) at each characteristic wavelengths (λ_1 , λ_2) through filters (11, 12) and detecting the passed emitted light (8), (see figure 1, column 8, 17-42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dovichi et al in view of Tambo et al (5,194, 921).

As to claim 1, Dovichi et al disclose capillary (26); means (130) for projecting a light beam (132) through capillary (26) to illuminate a predetermined volume in capillary (26); means for causing a sample containing sample particles (126) which naturally fluoresce or are tagged to fluoresce to flow along the capillary (26) through predetermined volume; a tunable filter (139) for receiving light emitted by each particle (126); and a detector (138) for detecting the output light from acoustic-optic filter (139), (see figure 1, column 3, lines 33-67, column 5, lines 1-67). Dovichi et al fail to teach light pulses and wavelengths. Tambo et al teach light pulses for each wavelength (λ_1 , λ_2) of light emitted by each particle (A). It would have been obvious for one ordinary skill in the art to modify Dovichi et al to include light pulses for each corresponding wavelength (λ_1 , λ_2) of light emitted by each particle (A) to improve the system detecting capability of the wavelength intensity corresponding to each particle (A) allowing each sample particle (A) to be identified by the conversion of its wavelength intensity into an electrical signals (V_1 , V_2) wherein the outputs (V_{out1} , V_{out2}) result in clear and precise images displayed on

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a monitor in order for effective and critical observation to be performed, (see figure 1, column 2, lines 25-37).

As to claim 2, Dovichi et al disclose the tunable filter (139) is an acousto-optic filter, (see figure 1, column 5, lines 45-50).

As to claim 3, Dovichi et al disclose a detector (138) for detecting light scattered by particles (126) as they travel through the predetermined volume, (see figure 1, column 5, lines 24-50).

As to claim 7, Dovichi et al disclose particles (126) in a sample fluid which fluoresce and emit light (132), capillary (26) for receiving the sample fluid; a pump (110) for causing the sample fluid to flow through the capillary (26); a light source (130) for projecting a light beam (132) through the capillary (26) to illuminate a predetermined region along the capillary (26) whereby singulated particles (A) flow through the illuminated region and emit fluorescent light; tunable optical filter (139) responsive for receiving the florescent light; a detector (138) for receiving light, and a processor (142) configured to receive out signals, (see figure 1, column 4, lines 65-67, column 5, lines 1-67). Dovichi et al fail to teach light pulses, wavelengths and output signals. Tambo et al teach light pulses for each wavelength (λ_1 , λ_2) of light emitted by each particle (A) and output signals (V_{out1} , V_{out2}). It would have been obvious for one ordinary skill in the art to modify Dovichi et al to include light pulses for each wavelength (λ_1 , λ_2) of light emitted by each particle (A) to improve the system detecting capability of the wavelength intensity corresponding to each particle (A) allowing each sample particle (A) to be identified by the conversion of its wavelength intensity into an electrical signal (V_1 , V_2)

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wherein the outputs (V_{out1} , V_{out2}) result in clear and precise images displayed on a monitor in order for effective and critical observation to be performed, (see figure 1, column 2, lines 25-37).


As to claim 8, Dovichi et al disclose the tunable filter (139) is an acoustic-optic filter, (see figure 1, column 5, lines 44-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don Williams whose telephone number is 571-272-8538. The examiner can normally be reached on 8:30a.m. to 5:30a.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephane B. Allen
Primary Examiner